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EVALUATING VOCATIONAL EDUCATION IN THE PUBLIC SCHOOLS. DEVELOPMENT AND DEMONSTRATION OF EDUCATION IN THE PUBLIC SCHOOLS. FINAL REPORT.

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DESCRIPTORS- *VOCATIONAL EDUCATION, *PROGRAM EVALUATION, ADVISORY COMMITTEES, CONSULTANTS, FOLLOWUP STUDIES, ADMINISTRATIVE PERSONNEL, STAFF UTILIZATION, EAST LANSING

THE MAJOR PURPOSE WAS TO DEVELOP A GENERALIZED PROCEDURE FOR MAKING AN EVALUATION OF A COMPREHENSIVE PROGRAM OF VOCATIONAL EDUCATION USING THE SCHOOL'S OWN PERSONNEL RESOURCES COMMUNITY RESOURCES, AND STATE CONSULTANT SERVICES. A VARIETY OF ONGOING ACTIVITIES BY THE DIRECTOR, THE CONSULTANTS, AND THE STAFF IN THREE COOPERATING SCHOOLS IN MICHIGAN ARE DESCRIBED. THESE INCLUDED STAFF COMMITTEE WORK, SCHOOL OPEN-HOUSE VISITS, USE OF ADVISORY COMMITTEES, DEVELOPMENT OF SURVEY FORMS AND OTHER INSTRUMENTS, AND A STUDY OF PROGRAM OUTCOMES. THE PROJECT DEMONSTRATED THE VALUE OF INVOLVEMENT OF LOCAL STAFF. THE IMPORTANCE OF LOCAL ADMINISTRATIVE STAFF MEMBERS' APPROVAL AND SANCTION WAS EMPHASIZED. CONSULTANTS EVALUATING PROGRAMS IN PUBLIC SCHOOLS SHOULD BE PREPARED TO GIVE MORE DIRECT HELP THAN WAS DONE IN THIS STUDY. THOSE STAFF MEMBERS WORKING ON A COMMITTEE SHOULD BE PROVIDED WITH RELEASED TIME BY THE LOCAL PUBLIC SCHOOL. TWO EFFECTIVE PROCEDURES FOR CONDUCTING AN OCCUPATIONAL FOLLOWUP OF GRADUATES AND OTHER FORMER HIGH SCHOOL STUDENTS WERE DEMONSTRATED. IT WAS RECOMMENDED THAT THE PROJECT WHICH WAS THE BASIS OF THE PRESENT REPORT BE EXTENDED TO OTHER SCHOOLS IN MICHIGAN. (PS)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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EVALUATING VOCATIONAL EDUCATION IN THE PUBLIC SCHOOLS

Final Report on the Project

entitled

Development and Demonstration of Procedures for Evaluation of a Comprehensive Program of Vocational Education in the Public Schools

ED 011 912

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FOREWORD

This is a report of a research project cooperatively financed by the Michigan State Board of Control for Vocational Education, Department of Public Instruction, as a part of its support of research in vocational education. The study was to some extent an outgrowth of the Michigan Vocational Education Evaluation Project completed in 1962. The work on the study was begun in April, 1963 and was terminated on June 30, except for the tasks of producing and disseminating publications, including the present report.

An advisory committee was utilized in starting the project. Several staff members in vocational education at Michigan State University and the Department of Public Instruction assisted the director and served as consultants on several occasions. Mr. Arlynn D. Anderson was employed as research assistant on the project during the second year.

The purposes of this report are two-fold. First, it is to give an accounting to the Department of Public Instruction of the work done on the project and on the findings of the study that may be of value to that agency in its future activities. The second purpose is to provide information regarding processes and procedures in conducting an evaluation study of this nature, in the hope that it may be helpful to others who may engage in research or evaluation procedures and who may conduct evaluations in the future.

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INTRODUCTION

The Problem

The problem dealt with in this study, stated simply, was: How can public schools develop and use a plan for evaluation of a comprehensive program of vocational education, utilizing their own personnel resources, community resources, and state consultant services? It was hypothesized that an evaluation plan could be developed and demonstrated, and that such a plan might be one which could be adapted by other schools, if it appeared to fit their needs for help in replanning and improving public school programs of vocational education. A correlary, or related problem was the discovery or development of fruitful ways of rendering consultant services in evaluation. It was assumed that evaluations would lead to planning or development of more effective and comprehensive programs of vocational education.

Purposes

The major purposes of this study were:

--to develop a generalized procedure for making an evaluation in a public school system;

--to utilize and further test the recommendations of the MVEEP study[1] in the light of local community conditions; and

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[1]"Vocational Education in Michigan: The Final Report of the Michigan Vocational Evaluation Project," College of Education, Michigan State University, 1963.

--to assist selected public school systems to evaluate and replan their programs of vocational education.

Background of the Study

The setting of the problem is one which is characterized by several changing occupational, socio-economic, and educational conditions, coupled with a concern on the part of public schools to evaluate their programs of vocational education to adapt to these changes. The change of school orientation is from one pretty largely local-community based, to an orientation toward the world of work in larger geographic and demographic areas. Changes in the occupational structure include movement toward the virtual extinction of unskilled labor, an increasing proportion of the labor force in distribution and services compared to production, and increasing demands for technicians.

Administrators of public schools, and the members of school staffs having responsibilities for vocational education have become increasingly interested in the subject of evaluation. This has been brought about in part by some recent studies and related developments. The President's Panel of Consultants on Vocational Education conducted an evaluation of vocational education in the United States.[2] In Michigan an evaluation of public vocational education was conducted and reported in 1963.[3] The Vocational Education Act of 1963 requires periodic national evaluations. Such national evaluations would depend upon

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[2]The President's Panel of Consultants, Education for a Changing World of Work, U.S.D.H.E.W., 1963.

[3]Op. cit.

local and state data and evaluations. School administrators and staffs have become more aware of certain questions being raised by their publics. These questions relate to what the schools are doing to prepare youth and adults for the world of work, and how well this is being done.

Few programs of vocational education have been broader than the more obvious and local needs of the communities in which they are based. Yet follow-up studies of high-school graduates in many cases show heavy migration to other--often larger--communities after limited time spent in a local entry job. Offerings in schools in many areas often have been limited to agriculture and home economics, with scattered offerings of business courses limited to development of specific skills in office work; while vocational industrial education programs have been provided principally in only the larger schools and those in larger cities. Comprehensive offerings cutting across most fields of vocational education have been few, as well as lacking in the variety of courses needed to provide a wide range in depth of training.[4] Educational leaders in the public schools who are aware of the needs of youth and adults and of the changing occupational complex are becoming increasingly interested in improving and/or expanding their programs. They are realizing that program evaluation is necessary to bring about significant improvement.

While teachers in many schools have conducted evaluations of their own instruction in various subject areas, and sometimes in a

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[4]Byram, Harold M., "Factors Associated with the Development of Comprehensive Programs of Vocational Education in Public Schools in Michigan," East Lansing, Michigan, College of Education, Michigan State University, Mimeo, 1958.

whole field, such as industrial education or agricultural education, few schools have taken a searching look at all of their programs in the light of needs. Evaluations conducted in the past, in which consultant help has been utilized, often has emphasized ways and means rather than objectives and outcomes. Professional educators responsible for planning, organizing and operating programs of occupational preparation now, however, are seeking ways of evaluating the total contribution of the school to preparation for the world of work. In other words, they are concerned with the outcomes of these programs. Many also are convinced that provisions for evaluation need to be built into future plans for vocational education in the public schools.

An assumption underlying the present study was that evaluation should be done by those responsible for the program and those affected by it, utilizing assistance of others, where appropriate. Coupled with this is the presumption of the necessity of defining more adequately the role of consultants to those educators who are responsible for conducting program evaluations. Since the need for consultant help in this matter should be apparent, the study was conducted so that the findings might also be useful in the education of future consultants.

Review of Related Studies

A few early research studies focused on local evaluation through follow-up.[5] Most state and national follow-up studies, however, have dealt with graduates from a single field of vocational education.[6] So-called evaluative criteria have been developed for the several fields.[7] These instruments have provided a stimulus to school people to study their programs, field by field. They have not dealt with local staff involvement and school self-study. Rather, they have emphasized the extent to which the ways and means of conducting programs of vocational education meet certain theoretical criteria and standards.

Program evaluation through involvement of those who are close

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[5]An example is: Occupational Adjustments of Vocational School Graduates, AVA Research Bulletin No. 1, June 1940.

[6]Examples are: Staff Paper No. 4, on "Placement of Graduates and Early School Leavers in Day Trade and Industrial Education Programs," 1962, Office of Education, Vocational-Technical Division; Amos B. Rougeau, A Ten-Year Study of Former Students of Vocational Agriculture in Six Reorganized School Districts in Missouri, 1946-1955, Bulletin 70, Columbia, Missouri, University of Missouri, 1958; and Haines, Peter G., and Coleman, Brendan, "How Cooperative Trainees Fare in the Labor Market," ER 16, East Lansing, Michigan, College of Education, Office of Research and Publications, Mimeo 32 pp., 1962.

[7]See: "Evaluative Criteria for Distributive Education," "Evaluative Criteria for Vocational Agriculture," and "Evaluative Criteria for Industrial Arts Education," all available from the American Vocational Association, Washington, D.C.; "A Procedure for Evaluating A Local Program of Trade and Industrial Education," available from American Technical Society, Chicago; "Evaluative Criteria for Business Departments of Secondary Schools: Mimeo. 90 pp., South-Western Publishing Company, Cincinnati; and "Evaluative Criteria" for use in evaluating secondary school programs of vocational education, available from the Cooperative Study of Secondary-School Standards, National Education Association, Washington, D.C.

to the operations has not received as much attention. One of the early investigators to develop procedures on the involvement and self-study basis was Hamlin, who conducted a five-year project in the field of vocational agriculture.[8]

Reference has been made to two recently completed studies dealing with evaluation of vocational education nationally.[9] A national study currently under way should call attention to some aspects of local public school efforts toward meeting the needs of employment-bound youth in certain types of schools.[10] That study cuts across the traditional fields, and attempts to measure outcomes through follow-up, but does not include involvement of staff and citizens in its design.

In summary, the previous studies: (a) have been limited to single fields of vocational education; (b) have focused on ways and means rather than on ends; (c) have not dealt with involvement in the evaluation process; or (d) have not been concerned with the utilization of and the role of the consultant in program evaluation. The present study has dealt with comprehensiveness and outcomes of programs of vocational education; with the efficacy of staff and citizen involvemnt; and incidentally with the role of consultants in evaluation.

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[8]Hamlin, H. M., "Reports of a 5-Year Project in Program Planning and Evaluation in Agricultural Education." (Three mimeographed reports in 1942, 1944 and 1945) Urbana, Illinois, University of Illinois, Agricultural Education Office.

[9]The President's Panel of Consultants, op. cit., and Smith, Harold T., Education and Training for the World of Work, Kalamazoo, Michigan, The Upjohn Company, 1963.

[10]American Institute for Research, The Process and Product of Vocational Education in the United States, 410 Amberson Avenue, Pittsburgh, Pennsylvania.

Organization of the Report

The procedure followed in launching the evaluation projects in the three Michigan schools is described. This study covered a period of approximately $2\frac{1}{2}$ years, and encompassed a variety of activities on the part of the director, the consultants, and the director and staff in the cooperating schools. These on-going activities are described so as to furnish a picture of the involvement of local staffs and citizens. Following this description the identifiable outcomes of the study are given, along with the implications of these outcomes and local evaluation procedures for future local program evaluation.

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PROCEDURE

Selection of Cooperating Schools

It was believed that the evaluation project should be conducted in more than one school, because of variations extant among Michigan schools with respect to size, complexity of organization, variety of clientele, and geographic setting. In addition, three criteria were set up for these schools, as follows:

1. The school system offers a broad program of vocational education in a variety of important occupational fields;

2. The administration, faculty, and citizens are interested in conducting an evaluation and in utilizing the services of the institution to make the study; and

3. Adequate local leadership for the project is, or will be made available.

Four schools were considered as roughly representative of variations referred to above. Gaylord is a fairly typical Northern Michigan school in a rural and resort area, with an enrollment in 1963 of 1,155 and 43 teachers employed. Marshall is roughly representative of Central and Southern Michigan communities supported by a balanced economy of agricultural, industrial, and business productivity. The enrollment in Marshall schools totaled 2,750 in 1963, and 125 teachers were employed. The metropolitan area school was represented by Fitz-

gerald, P.O. Warren. This is an area quite similar to many others around cities like Detroit, Grand Rapids, Flint and Lansing, with growing population, and with some of the sociological factors that make up a community not present within the school district or school service area. The school system was the third largest of four that exist within the City of Warren. In 1963 it enrolled 4,714 pupils and employed 220 teachers. A fourth school system also was originally selected that was roughly representative of larger schools (not metropolitan). It enrolled 9,600 pupils and employed 378 teachers. This school was not included in the project, however, because of administrator and staff preoccupation with problems in the reorganization of the program of vocational education in relation to an emerging program in the local community college.

It was believed that the criteria set up for selection of cooperating schools were pretty well fulfilled in each case. In regard to the first, Gaylord had vocational programs for agricultural and office occupations and in home economics. The industrial education program was limited to industrial arts because of a lack of facilities. Marshall maintained programs of agriculture, home economics, office education and cooperative education in diversified occupations. A broad offering of industrial arts included a few advanced, specialized courses, and preparatory work for cooperative occupational education. Fitzgerald had a broad program of industrial courses, a few of which might be classed as vocational, as they were specialized or led directly

into specialized training. In addition, there was a program of vocational education for office occupations and a program of home economics. Cooperative occupational education was conducted in the three fields: office, distributive, and industrial occupations.

A consulting committee was utilized by the project director to determine the schools which would meet the second criterion. All fields of vocational teacher education were represented on this committee, as well as the vocational education office of the Department of Public Instruction. Several schools were nominated and the three mentioned above were selected. They all had a record of manifestation of interest in vocational education evaluation and planning, and in cooperative activity with teacher education institutions. Finally, it was the conviction of the consulting committee that each school being nominated had adequate local leadership available for the project. In the case of Fitzgerald the local director of vocational education was designated as local project director. Marshall did not have such a position and the high school principal was named as local project director. Gaylord created the position of half-time director of vocational education, and designated the staff member appointed to this position as local project director.

As intimated previously, a letter of invitation to participate in the study was sent to four superintendents. As reported, one accepted with reservations, and this school was not included. The three others, just described, accepted and constituted the cooperating schools.

Beliefs and Assumptions Held

This study was based in part on certain beliefs and assumptions held either by the director of the study or by the consulting committee. Following are those of greater importance:

1. Local program evaluation should be done by those most closely identified with the program, as administrator, teacher and student.

2. The process of evaluation should emphasize objectives or goals and outcomes, in addition to, if not instead of ways and means.

3. The decision as to what shall be evaluated should be made by those concerned with the local public school.

4. The local school staff should be free to try whatever activities the local director and staff desire.

5. Consultants should give ideas, raise questions, supply technical information and advise, but should not render judgments regarding the effectiveness of programs unless asked to do so.

6. Citizen involvement is desirable in an adequate evaluation of a local program.

7. Vocational education was defined, for purposes of this study, as broadly designating that portion of education which goes further than general education by dealing in a more specialized.

manner with the development of occupational competency. It is not restricted to those programs which are reimbursable through the National Vocational Education Acts. While this concept includes upgrading and/or retraining of adults the study is almost entirely limited to the secondary school program.

Launching the Project

Work on this study was begun in April of 1963. In the letter of invitation sent to each school the objectives of the project were given, as well as what would be expected of persons in the schools participating in the project.

A one-day conference of representatives of the three schools was held on May 21, 1963. Attendance included two teachers, a D.P.I. representative, three Michigan State University staff members and a graduate assistant. The objectives of the project were explained. It was brought out that no set plan for evaluation had been pre-determined, but that these schools and Michigan State University would work together to plan procedures and activities.

The need for time to be provided in each school for leadership on the project was pointed out. As a result the following decisions were made. At Fitzgerald the director of vocational education would be the project director and would utilize a staff committee of vocational department heads. At Marshall the principal, who was to be the project director named the coordinator of cooperative occupational training as his assistant director. At Gaylord a teacher was freed

of half-time teaching responsibilities, placed in the newly created position of local director of vocational education, and made project director.

Among the steps agreed upon to get the project under way locally were the following:

1. Hold orientation meeting for local staff members most directly concerned with preparation for the world of work.

2. Form working staff committee in each school.

3. Utilize this committee to select, plan, and carry out evaluation activities.

4. Provide opportunity for consultants to become acquainted with each local program before serving in a consultant capacity.

5. Utilize consultants to study unmet needs in vocational education.

6. Organize an advisory committee in each community.

Local Activities in Getting the Project Under Way

A two-day meeting of the staff committee at Gaylord was held. As part of the orientation it was brought out that a new wing would be added to the high school building for vocational education. Another development affecting the program was the beginning of a movement to study the need for an area vocational school. The following activities were listed for immediate implementation, or for further consideration by

the local director, the administration and/or the faculty:

1. Study the role and responsibilities of local director of vocational education.

2. Become familiar with the courses of study extant in the vocational education and practical arts fields of the Gaylord Community Schools.

3. Organize and start a lay advisory committee on vocational education.

4. Study need for, and design a survey of occupational training needs and future placement opportunities - area as well as local.

5. Explore needs for vocational guidance services in relation-to vocational courses.

6. Hold meeting of total secondary education faculty for orientation, and for development of a faculty philosophy of vocational education.

7. Hold meetings of teachers most closely identified with specialized aspects of vocational education.

8. Study further the possibilities of development of a program of cooperative occupational training.

In the preliminary meetings at Marshall it was brought out that a study of graduates of business courses was already under way. A need for more nearly adequate description of the total vocational education program for guidance of students and for the school board was brought out. The activities selected for starting the project included the following:

1. Prepare and distribute a brief description of the project to the faculty at the August pre-school conference.

2. Form a working committee of the local project director, his assistant, a staff member from each of the vocational and/or practical arts fields, and from guidance and counseling.

3. Hold a fall faculty discussion on philosophy of preparation for the world of work.

4. Form a local consulting committee on vocational education.

5. Prepare descriptive brochure for students on specialized education for the world of work.

6. Prepare a description of the vocational education and practical arts programs for the board of education.

7. Hold staff committee conferences and work sessions.

The planning of activities at Fitzgerald necessarily took account of those already under way that had a bearing on evaluation. These activities were:

1. An annual occupational follow-up study of former students

2. A listing of jobs in entry occupations as reported by employers

3. Development of a record of placements

4. Annual determination of number and percentage of dropouts from high school

5. Curriculum revision in business education

In addition, it was decided to study the feasibility of organizing and using an advisory committee on vocational education, and to study selected courses to improve basic preparation to increase employability of youth (physics and trigonometry, particularly).

Consultant and Other Services Given by the Project Director

In addition to the structured meeting held to launch the project, three meetings were held in 1963-64 and two in 1964-65. The first year these meetings of local directors and their assistants or associates were held for the purpose of providing for a sharing of ideas and experiences, for reporting progress, and for discussing common concerns. The last two meetings also served these purposes, but were held as well to discuss the outline and content of the manual on evaluation that was then under development.

The project director met with the local director and his assistant and/or administrator in the three schools on 20 different occasions. These meetings served to acquaint the project director with curriculum, instruction, and facilities; to note and record local evaluation activities; to discuss plans for utilizing consultant services; to plan for future local staff committee activities; and to discuss plans for the three "open house" meetings that were held. These meetings were supplemented by nine individual conferences with local directors or teachers, largely on a consultant basis.

On 13 different occasions meetings of local staff evaluation committees were attended, and the director's participation was in the role of consultant. These meetings included ones held jointly with

local advisory committees in two schools and, jointly with open-house meetings in all three schools. One meeting of a local board of education was attended.

It is pertinent at this stage of the report to point out the three roles filled by the project director either at different times or concurrently. The role of project director called for communications with local directors and their assistants, for recording of activities, for coordination of the work of consultants, and for reporting of developments. As consultant on vocational education the director raised questions regarding problems or program aspects to be studied; suggested ways of studying needs; assisted with development of data-gathering instruments; and gave his opinion on proposed changes and developments in local programs as requested. The beliefs and assumptions previously mentioned as being held had a bearing on both these roles.

The director, in his role as director, took a non-directive approach toward local plans for evaluations. This is because the purpose of the project was to discover, develop, and try out promising activities or procedures. There was no set formula to be applied. Since, as has been previously pointed out, the goals-and-outcomes approach was believed to be most promising, and staff and citizen involvement was held to be important, these were encouraged either directly or indirectly by the director in his consultant role.

The third role assumed was that of consultant in vocational agriculture. In this capacity he was consulted by the teachers of agriculture in Marshall during the first year and in Gaylord during the

second year. Because of a change of staff in Marshall the second year, and because the teacher at Gaylord gave priority to his new assignment as local director the consultant activities in this role were limited.

During the 1964-65 year a research assistant was employed on the project. He served as an assistant to the director on numerous occasions and helped to assemble material for, and aided in the writing of the manual. He also gave consultant service which will be described in the next section.

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ACTIVITIES INVOLVED IN MAKING THE STUDY

Staff Committee Work

One of the early activities in the project was the organization in each school of a staff committee on evaluation of vocational education. This proved to be a very important and fruitful step. At Gaylord the staff committee initially included the local director as chairman, and all five other teachers of vocational and/or practical arts subjects. The second year the newly appointed counselor and the art teacher were added. In total, 11 staff members and administrators were directly involved in the study in Gaylord.

The Marshall committee included the chairman, the coordinator, the head of business education, the two home economics teachers, a counselor, an industrial teacher, and during the second year, the assistant principal and an art teacher. Other persons involved in the project, plus a committee replacement the second year, brought the total staff involved to 19.

At Fitzgerald the committee consisted of the local director, heads of vocational departments, two coordinators, the director of guidance, a counselor, and the assistant principal, or eight persons. Replacements due to staff changes occurring through the duration of

the project brought this total to twelve. Non-committee members involved in some meetings, but directly with the project brought the total staff involved at Fitzgerald to 25. A grand total of 55 different educators were directly involved in project activities of the three schools, with 29 of these serving on a staff committee. For listing of names in the three schools see Appendix A. In addition to these, many teachers on the project directly cooperated with the local director and/or a department head through general faculty meetings.

The three staff committees directed their attention to development of a philosophy and identification of objectives for the program; to the use of practices initially decided upon and reported in a preceding section of this report; and to selecting and conducting additional activities.

School Open-House Visits

Early in the project all three committees became interested and involved in an open house to see and learn about the vocational education program, first at Fitzgerald, followed by the one at Marshall, and later at Gaylord. The primary purpose of the open houses was to enable committee members to study programs in other schools in order to get ideas for evaluation and improvement. Another purpose was to help the host school to review its program and to obtain ideas for improvement from the visitors. A concomitant of these outcomes was the information gained by many staff members regarding programs in

their own schools. In each case the open house was an all-day affair, with time divided between presentations by staff from the host school and visits to the classrooms, laboratories, and shops to observe instruction and facilities. Following these activities the state project director conducted a discussion to bring out reactions of those present to what they had seen and to report progress of the other two schools on their local evaluation projects.

There were eight in attendance at Fitzgerald, including two consultants and a foreign educator. Six visiting local committee members and four consultants attended the open house at Marshall, and eight committee members attended the open house at Gaylord. The staffs from the host schools for the three open houses brought the total of participating educators to 43. Five persons attended all three open houses and five others participated in two.

Consultant Services

The need for consultant services was explored by local committees and two kinds of service needs were identified. One was for a consultant in each occupational field to work with teachers involved in this field. The purposes of such consultation varied with the school and with the field, but included; identification of problems for study; preparation for study of vocational education needs in the several fields; analysis of objectives and content of courses; and evaluation of facilities and equipment.

Dr. Helen Hollandsworth, home economics education, Michigan State University, served as consultant one day at Marshall, two days at Fitzgerald, and one and one-half days at Gaylord. Mr. Allan Barron, business education, Michigan State University, served two days at each school. In the absence of an available consultant from Michigan State University in industrial education, Mr. Arthur Hansen, Department of Public Instruction, served as consultant one day at Marshall and one and one-half days at Gaylord. It was not possible to obtain a consultant in industrial education to serve at Fitzgerald.

The other type of service requested included assistance in organizing and using citizens' advisory committees for vocational education. This type was provided by the project director. Another request was for help in studying community occupational needs and appraising existing programs in light of these needs. This was also provided by the director, and supplemented by the other consultants. A third type of help related to development and use of instruments. Here the director also served, along with some assistance from the other consultants.

The research assistant gave consultant service not only on development of the instruments, but also on adapting them to machine scoring and tabulation; on conducting interviews; and on summarization, analysis, and interpretation of data. Six days were spent by that consultant at Fitzgerald, and two each at Marshall and Gaylord, in addition to informal contacts on campus with directors, and considerable time on related analytical and other work.

Identification of Objectives

In all three centers the staff committees gave considerable attention to objectives of the program. The objectives of the then existing programs were examined. At Marshall the objectives of each vocational department and the guidance program were presented to their citizens' committee on vocational education, called the "committee of consultants." At all schools the role of the total school program in the preparation of employment-bound youth was discussed, and at Fitzgerald and Marshall the objectives of related courses in mathematics and science were examined.

In both these schools the objectives of post-high school instruction were discussed because of the problems brought up by contacts with former students. Many of these youth who had taken only academic subjects for college preparation, or had taken only a limited number of specialized courses returned to ask the school what could be done to help them get a job, or to get a better job.

At Gaylord, the passage of a building bond issue and start of construction of a new vocational and practical arts wing coincided with the start of the evaluation project. As a result, the immediate attention was focused on planning programs for the utilization of facilities, but in line with needs which had not previously been thoroughly

studied. Thus, the objectives were cast in a philosophical framework and in terms of what a school like this ought to be expected to accomplish. The discussions by subcommittees of the advisory committee on vocational education did, however, place considerable emphasis on what employers hoped the school would do in preparing youth and adults of the community for employment with their companies.

The staff committee at Fitzgerald placed in writing a statement of overall objectives, and carried on detailed study of occupational competencies developed and those needed by employers. A fairly complete list was developed of entry occupations for which the school prepared students, in which students had been placed, and/or for which employers had sought workers. A total of 32 entry jobs were listed. Each vocational department staff concurrently prepared a list of jobs for which their department prepared youth, together with competencies to be developed and minimum performance standards held to. Interviews were conducted with employers to get from them validating information for the entry job list, and either corroborating or new information regarding occupational competencies required.[1]

Use of Advisory Committees

Since none of the three schools had previously used advisory committees on vocational education the director was called on to serve as a consultant on this aspect. The advisory committee at

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[1]For additional details on this analysis of objectives in terms of competencies see Appendix C, and also the manual, Byram, H.M., Evaluation of Vocational Education Programs, Bureau of Educational Research, College of Education, Michigan State University, 1965, including interview forms in the appendix of the manual.

Marshall was the first to be formed. This committee consisted of 29 members.. It was not formally organized with officers, and probably was not intended to become a permanent organization. Fifteen members attended the first meeting. A local administrator presided. Representatives of each department presented objectives and programs, and answered questions. An equal amount of time was used for sub-committees based on occupational fields. The sub-committee members discussed objectives, and the needs of the program with the staff. The committee did not meet again during that year nor the second year, largely because the work of the staff committee on evaluation was not moving rapidly enough, in the judgment of the local director, to warrant further use of the advisory committee. It should be pointed out, however, that an advisory committee on the cooperative occupational education program had been utilized during this time.

At Fitzgerald the staff committee lacked the support of administrative policy favoring use of an advisory committee, although here, again, use had been made of an advisory committee for the cooperative education program. Nevertheless, the staff committee considered and discussed the idea. Near the end of the second year three business and industrial representatives were added to the staff evaluation committee as a quasi-advisory group.

Study of Program Outcomes

At Gaylord no systematic occupational follow-up had been conducted or was attempted. No organized placement program existed prior to installation of the guidance program. Two instruments were developed to obtain evaluations of former students and/or parents of the program in homemaking and the program of vocational agriculture. At the end of the two years of the project the latter survey instrument had not yet been used, but the one on home economics had been.

At Marshall, periodic follow-ups of business education students had been made, the most recent one having been completed near the start of the project. It was decided, however, to follow-up the entire class of 1963. A questionnaire was developed which obtained information on employment and reactions to vocational curricula and instruction. The latter were prepared for each vocational department by staff committee representatives of that department.. A 52 per cent return was received on this instrument.

Some of the more important findings of this survey were: the small percentage of graduates who had taken post-high school vocational-technical education; the high value placed on English and Mathematics, as factors in their vocational success; and the relatively low percentage who indicated they had made a decision regarding their

vocation before leaving high school. Recommendations were made for study in depth relative to placement, vocational planning, skills needed for job entry and need for post-high school vocational-technical education. Revisions in the follow-up questionnaire also were suggested, as well as more rigorous structuring of data summaries.

A unique feature of the Marshall evaluation project was the decision to have members of the staff committee write an evaluation of the department with which they were concerned. The departmental representatives were to use the reactions of the consulting committee, and from any other citizens or parents, pupils, and staff, and were free to secure information as they saw fit. Two departments, business and agriculture are represented by completion of this type of written departmental self evaluations. The others had not prepared such statements by the end of the project. Lack of staff time and insufficient objective information appeared to be factors inhibiting this activity.

The other document arose from the requirement made by the local board of education of an annual report on vocational education. This report is to include subjects taught, enrollments with breakdown, accomplishments of program and teachers, accomplishments of clubs, services performed, equipment needed, curriculum changes recommended, research, budget, and implications for the future. The assistant to the local project director, who has since been appointed to the position of director of vocational education beginning January, 1965, prepared an over-all report, and incorporated recommendations for the future to take advantage of new funds available under P.A. 88:210.

Reference has previously been made to the Fitzgerald analysis of departmental objectives in terms of competencies to be developed. These statements of competencies were further defined to prepare proficiency statements in terms of minimum standards to be attained. Proficiency lists were developed for the industrial drafting sequence: woodworking, machine shop, fluid power; for office and distributive education; bookkeeping, retailing, shorthand, and office machines; and for home economics.

The annual follow-up of former students made at Fitzgerald provides information on occupational placement. Detailed information has been obtained from some employers regarding the extent to which entry employees actually were found to possess the level of competency indicated in the course proficiency lists. It is planned to gather more of this type of information. An employer rating form has been used which has proven to be an aid in evaluating the training.[2]

Developing Survey Forms and Other Instruments

Study of needs in relation to the current programs of vocational education took different forms in the three schools. Marshall, being located in Calhoun County, had representatives involved in the four-county study of vocational education needs and programs conducted in

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[2]A copy of this form is included in the appendix of the manual, Evaluation of Vocational Education Programs, op. cit.

1963-64. It was, therefore, decided that the findings of this "Committee of One Hundred" would be examined before any more formal local study of needs was done. The form that was developed for survey purposes is the check list used with former students. This form goes beyond the recording of occupational status to the obtaining of alumni reactions to many phases of the high school curriculum. Consultant help was utilized in adapting the questionnaire to machine tabulation, and in modifying it for clarity and simplicity as a mail-in instrument.

The desire at Gaylord for a community survey of needs for vocational education prompted the development of a form for recording data to be obtained from interviews with employers. This form was tried out and used with a few employers.. Its full use was postponed, however, due to the survey being conducted in the intermediate school district and adjoining districts to determine needs for an area vocational-technical education center. Members of the local advisory committee and all consultants participated, along with the local director, in the preparation of this form.

Two other forms were developed at Gaylord. One was made to record reactions to the program of home economics. This form was developed through help of the home economics teacher, and the sub-committee of the local advisory committee. The assistant to the state project director worked with the Gaylord director to prepare an instrument with similar objectives for the vocational agriculture program. This form was developed rather late in the project, so had not yet been used.

The forms prepared and used at Fitzgerald in interviews and occupational follow-up have been referred to in a previous section and are reproduced in the manual on evaluation. Some of these had been worked out prior to the start of the project and were modified by the staff committee as the directions of evaluation project seemed to suggest. Others were developed by the staff committee, with only token assistance from the consultants.

OUTCOMES OF THE STUDY

The outcomes of this study are reported first in terms of the three major objectives set up in the beginning. The over-all accomplishments on the third objective are supplemented by those identified with each school, and include certain program changes. One of the concomitant outcomes was the development of a number of instruments used or to be used on the project. Finally, it appeared logical to submit suggested implications of the study outcomes for future consideration.

Generalizations Regarding Procedures for Conducting an Evaluation in a Public School System

The following generalizations are drawn largely on the basis of the record of practices followed in the schools and the concrete results; as well as the reports of reactions to these practices coming from the schools. They do, however, to a certain extent, rest on the philosophical premises on which the study was based, and reflect a degree of subjectiveness based on contacts and observations by the director of the study.

1. The project has demonstrated the value of involvement of local staff in conducting an evaluation of vocational education in a public school. All staff committees appointed cooperated in

the work of the project. Only one teacher asked to be excused from the committee assignment. The participation of other teachers and citizens has been reported. There was administrative and citizen involvement in all three centers. Following are some of the supporting statements made by local directors at the end of the first year:

"The total faculty is becoming more aware of the need for vocational education for non-college bound students."

"The teachers...began to question...subject offerings, equipment, methods of teaching, percentage of student body enrolled in their departments and the contributions that our vocational departments were making in the...community. It was noticeable how much more interested these teachers became in their teaching assignments."

"Teachers...have placed a high value on meetings of the local evaluation committees."

All procedures developed and/or tried out in the schools were decided on by teacher committees and they had a part in development of all data gathering instruments used in the study. Some of these instruments could be criticised in the light of accepted standards for sophisticated research instruments. They do, however, represent what these committees were able to produce and are evidence of the efficacy of staff involvement.

2. The project has helped to clarify the role of local administrative staff members in conducting an evaluation. The importance of administrative approval and sanction was brought out many times, in addition to the interest and support given by these

persons to the local evaluations. Beyond this, it has helped to reveal the close relationship between administrative involvement and support for program changes suggested by staff committees. There was an indication from some teachers that they would have appreciated some consultation by administrators with them before the decision to conduct an evaluation was made and implemented. It would appear that a project of this sort could profitably promote greater participation by administrators than was promoted in the present study.

3. All indications point to the conclusion that local staffs and their directors would like to have had more direct suggestions or recommendations regarding procedures than they received. The project director's approach was largely non-directive. One reason for this was to provide a climate of freedom conducive to creativeness and initiative. Another reason was that the project director had hoped for an unfolding of a generalized procedure to evolve in the crucible of local public school experience. Consultants to public schools on program evaluation should be prepared to give more direct help than was done in the present study.

4. The requirement that there be designated in each school a director of the local evaluation project appears to have been justified. The role of this local director needs to be studied further. There was no outcome in the study to indicate conclusively that the director of the study should be a local director of vocational education, the principal, or some other school administrator or teacher.

5. Those staff members working on a committee, or otherwise deeply involved should be provided with released time by the local public school. The effectiveness of the work in those instances where this was done has been well demonstrated. Likewise, where implementation of plans was not going forward as well or as rapidly as desired, one strong inhibiting factor was lack of time for individual or group work.

6. The visitation by staff committees of another school system through an open-house arrangement to observe and discuss the vocational education program proved to be of value.

7. Two effective procedures for conducting an occupational follow-up of graduates and other former high school students were demonstrated.

8. There was insufficient evidence to say that the concept of total program evaluation, as distinguished from individual student, course-achievement evaluation, was understood by all teachers in the three schools at the beginning or during the project. The inescapable inference is that teachers and administrators need to develop a philosophy of vocational education, including the concepts of programs and curricula and not just courses with vocational objectives or connotations.

9. The interest and willingness on the part of citizens, including representatives of businesses and industries, to serve on a committee to advise on evaluating and program planning was amply demonstrated. There was no evidence to support misgivings regarding use of citizens' committees encountered many times among school administrators and teachers, generally.

10. The inference was substantiated that the total curriculur program of the school should be considered when appraising the effectiveness of the school in preparation of youth for the world of work. This came from employers on citizens' committees, from teachers not on the staff committees, and from administrators, as well as from those actively involved in the project.

11. A manual was prepared for local public school administrators and staffs to use in conducting local evaluations. It was based on the foregoing generalizations, on others which should be further tested, and on a few suggested practices based on evaluation theory or philosophy.[1]

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[1]Byram, Harold M., "Evaluation of Local Vocational Education Programs - A Manual for Administrators, Teachers, and Citizens." Bureau of Research and Publications, College of Education, Michigan State University, East Lansing, Michigan, 1965.

Recommendations of the MVEEP Report That Were Tested

One of the original objectives of the study was to test those recommendations of the MVEEP report that relate to evaluation of local programs. Five recommendations were identified as being in this category. The result of experience with these is given below.

1. Chapter II, No. 5, regarding the use of the report of Task Force, No. 1. Report--"Philosophy and Objectives of Vocational Education."

   This report was used by the project director and was found to be helpful in all three schools as a resource for staff discussions on philosophy and objectives for local programs. The sections of the report relating to general objectives, and to specific objectives of programs in each field also were used, but not to the same extent in all schools, and the objectives for some fields were used more than for others.

2. Chapter VII, No. 15, regarding use of advisory committees.

   The use of advisory committees was recommended by the project director and such committees were organized in two of the three schools, with a quasi-advisory committee in the third. These committees were not utilized to such an extent that it could be said that their usefulness in local program evaluation had been fully demonstrated.

3. Chapter VII, No. 23, regarding regularizing of follow-up studies. This recommendation was adopted in two schools. The efficacy of systematic follow-up was demonstrated and the value of certain procedures was proved.

   A subsidiary recommendation to this one (chap. VI, No. 6) is "that information (from follow-up) be used as a part of the appraisal of effectiveness of vocational programs." This was done in one school and started in a second one at the time of termination of the project. Thus, this recommendation has not been thoroughly tested.

4. Chapter VI, No. 7, "that each school and school system study its organizational structure in the light of the character and extent of the vocational education program needed for the community."

   This was partially done in all three schools. In none of the schools could it be said, however, that "the character and extent of the vocational education program needed for the community" had been fully determined. Structural reorganization would be contingent on this needs analysis, so a thoroughgoing reorganization should not have been expected. Two schools did make changes, that might be classed in this category. Both schools created the position of local director of vocational education and one developed a guidance program and assigned job placement to that officer.

Assisting the Three School Systems in Evaluating and Re-planning Activities

The over-all outcomes of the study having been reported first, the task remains of identifying or recounting accomplishments and program developments in each of the three cooperating systems. Some of these might have taken place had there been no evaluation project. It was believed, however, by those involved in the direction of the project as a whole, and by those responsible for the project in each school, that the changes all could be traced either directly or indirectly to the evaluation project.

1. Fitzgerald
   a. Organized an "advisory committee" on vocational education, consisting of the chairmen of business, home economics, industrial, and counseling; the coordinators of cooperative education; three representatives of business, distribution, and industry; and the local directors. Sub-committees were organized for each field.
   b. Held an industrial education workshop for the summer, 1965 to evaluate the total offering in industrial education, and the sequence of courses and course content; and to make plans for two new junior high school shops.
   c. Developed and added an industrial physics course and a trigonometry course as electives for all employment-bound students.

d. Developed a course in business education especially for industrial education students (accomplished its purpose, since most industrial students subsequently elected a regular business course, so new special course later discontinued).

e. Changed the objectives of the industrial education programs for those programs which had been primarily exploratory toward inclusion of vocational objectives.

f. Made placement and follow-up service the focal point for evaluation. Created a half-time position for this, with a half-time secretary. Revised forms for office application and referral.

g. Conducted an interview study to explore need for new vocational education programs, modifications of existing programs, and competencies and other worker qualifications needing to be developed.

h. Portrayed the present and proposed revised vocational education curriculum for total staff discussion and later administrative action.

i. Studied curriculum compared to technical education program at Macomb Community College to determine possible duplications and status of preparatory, or basic courses.

j. Increased staff in cooperative occupational education and in business education.

k. Made and summarized two job follow-ups of students; those graduating in 1962 and in 1963.

l. Cooperated with Macomb County area study of needs for area vocational education program.

2. Gaylord

a. Created and filled the position of half-time director of vocational education for the duration of the project, and continued the position after the project was over.

b. Installed a guidance program and operated it the second academic year of the project.

c. Assigned responsibility for job placement of students to the guidance office, thus removing it from the category of an overload of the high school principal.

d. Organized and used an advisory committee on vocational education. Sub-committees for each department were organized and used. They will be made permanent.

e. Noted an increasing awareness of needs for vocational education on part of school faculty and citizenry.

f. Made and summarized survey of parents of home economics students. Revision of courses is being made in light of findings.

g. Laid ground work for future cooperative occupational education program.

h. Established cordial working relations with the MESC. Planning being done toward MDT course in an off-farm agricultural occupation.

i. Planned facilities and equipment for new vocational education wing in line with needs, as identified in the study and in harmony with consultants' suggestions.

j. Amplified industrial education offering and created new industrial education teaching position.

k. Added a course in business machines.

l. Improved the placement of students in vocational courses.

m. Held several conferences of advisory sub-committees and industrial companies and organizations.

n. Cooperated in area study in Northern Michigan to determine needs for area vocational education program.

3. Marshall

a. Developed brochures for students, counselors, and faculty dealing with business education, metals, and cooperative occupational education.

b. Organized and held meeting of a consulting committee (of citizens) on vocational education.

c. Held faculty and citizen discussions on philosophy and objectives of vocational education.

d. In connection with EBI-Day conference, held meeting for representatives of vocational education departments and representatives from businesses and industries.

e. Produced first annual report of vocational education for the board of education, including an overall evaluation and recommendations for modification and expansion.

f. Apparently improved the status and image of staff members assigned to specialized aspects of occupational education (vocational education).

g. Provided more time in class schedule for elective courses, including vocational education courses, by transferring driver education from the academic year to the summer.

h. Added a new course in home economics for senior girls which will permit those who have had one course or less to take home economics at the academic level, and with the content appropriate to their needs; a new course on building construction; and an electronics laboratory.

i. Explored possibilities of training medical secretaries.

j. Installed a new physics course to help prepare students for middle-manpower positions. Technical aspects will be stressed, rather than theoretical.

k. Created and filled new position of half-time director of vocational education; provided clerical help for that office; and added second coordinator of cooperative occupational education, part-time.

l. Exploring possibilities of a new type mathematics course for employment-bound youth.

m. Studying new type of arrangement for individual projects for advanced students in industrial education.

Instruments Developed

Several types of data-gathering instruments were developed during the course of the project. These included questionnaire, questionnaire check-list, opinionaires, skill rating forms, referral card, placement record, employer report form, interview and schedule. A complete list of the forms developed and placed in the appendix of the manual on evaluation, is included in the appendix of the present report.

Implications of the Outcomes of the Study for Future Education and Research

1. It seems quite clear that there is a need for education of public school personnel in the procedure of evaluation of programs of vocational education that are based on the goals-and-outcomes approach and on involvement of local staffs and citizens. Some of this can and should be given by the local director of the evaluation. Some probably should be given by persons in state leadership positions in vocational education, both directly to teachers and to local directors of evaluation. In the case of the latter, particular attention should be given to training in the processes of involvement.

2. The role of the consultant on evaluation of vocational education should be further studied. If the perception of this role by local staff, by administrators, and by citizens is different from

that held by consultants or potential consultants such a finding might indicate a need for conferences of consultants and/or public school people to harmonize these perceptions. A program for education of state leaders for consultant service might well be in order.

3. The role of director of the local evaluation project should be further studied. The present study has recorded what the director did but no role analysis was made of perceptions by the local director, the teachers, the administration or others.

4. This study has demonstrated that departments of vocational teacher education can provide consultant service. The service provided in the present study met the approval of local staffs. It would appear that teacher education institutions should expand their programs and add staff members, so that the future requests for consultant service in evaluation of vocational education, and specialized consultant service in each field could be met. A university having vocational teacher education programs in all fields should recognize a special responsibility for this, as contrasted with one that is educating teachers in only one or two fields.

5. The process of analyzing competencies developed in vocational courses, and those required by employers, and the cross comparison made in the project conducted at Fitzgerald probably goes beyond what most public schools have done to date. It is recommended that the "Fitzgerald method" be tried out in other schools to determine the extent to which it is adaptable to a variety of community and school situations.

6. The occupational follow-up work done at Fitzgerald and at Marshall represent two somewhat different approaches. These should be studied by school systems to determine the procedure they will use. Since occupational follow-up of graduates of reimbursed vocational education stands a good chance of being virtually required under the new vocational education policies, State and Federal, decisions will have to be made in local public schools as to how such follow-up is to be conducted.

7. It is recommended that the project that has been the basis of the present report be extended to other schools in Michigan. The purposes of this new project would include the following:

   - to further test and improve upon procedures and practices in local program evaluation developed in the present study, especially in improvement of data-gathering instruments;
   - to study the role of the local evaluation director;
   - to study the role of consultants in program evaluation; and
   - to test the hypothesis that advisory committees on vocational education are essential to program evaluation.

When this new project is set up, participating schools should be expected to arrange for administrative participation, for appointment of a local director of evaluation, and for released time for work by the evaluation committee.

This project should be extended to other states, representing varying economies, demographic situations, types of state school systems, and vocational practices of the present Michigan project. The purpose would be to determine their general applicability outside Michigan.

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APPENDIX A

Local School Personnel Involved in the Study

Gaylord

Ivan Davis, Superintendent
Henry Smith, High School Principal
* Gary Belleville, Counselor
* Carl Carlson, Teacher of Industrial Arts
* Donald Crandall, Director of Vocational Education, Teacher of Vocational Agriculture, and local director of the project
* Larry Givens, Teacher of Business Education and Librarian
* Mrs. Helen Madsen, Teacher of Home Economics
* Hugh Raab, Teacher of Industrial Arts
* Jay Soderberg, Teacher of Business Education
* John Stuart, Teacher of Art
Harrison Stevens, Teacher of Power Mechanics

Marshall

Bruce Gray, Superintendent
Henry Cunningham, Assistant Superintendent and Curriculum Coordinator
* Jack Anderson, Teacher of Agriculture, 1963-64
* Floyd Beneker, Teacher of Agriculture, 1964-65
* Stanley Carlyon, Teacher of Industrial Education (woodshop)
* Fred Chaney, Head, Business Education
* William Crumrine, Assistant High School Principal and Guidance
* Ivan Fleser, Counselor
* Mrs. D. Hansen, Teacher of Home Economics
* Miss Cheri Pierce, Teacher of Art, 1964-65
* Edward G. Rose, High School Principal, and local director of the project
* John Strough, Coordinator of Cooperative Training, (Director of Vocational Education, 1965)
* Miss Joyce Wingate, Teacher of Home Economics
Ross Beach, Teacher of Agriculture, 1963-64
Aaron Davis, Teacher of Agriculture, 1964-65
Ray Davis, Teacher of Industrial Arts (drafting)
Gordon Gilchrist, Teacher of Industrial Arts (metal shop)
Paul Rauth, Teacher of Mechanics and Drawing

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*Members of Staff Committee on Evaluation

APPENDIX A (Continued)

Fitzgerald

Earl S. Eidt, Superintendent
Kenneth Kistner, High School Principal, 1963-64, Assistant Superintendent of Schools, 1964-65
* Alex Arnot, Assistant High School Principal, 1964-65
* Richard Berryman, Assistant High School Principal, 1963-64, and Principal and local director of the project, 1964-65
* Kenneth Boogren, Director of Guidance
* Carl East, Counselor
* William Gayde, Teacher of Hydraulics, 1963-64; Coordinator of Cooperative Industrial Education and Director of Placement, 1964-65
* John Gutka, Teacher of Business Education, 1963-64, Coordinator of Cooperative Office Education, 1964-65
* Leon Helminiak, Head, Industrial Education
* Donald Keller, Coordinator of Cooperative Distributive Education
* Bob Little, Head, Business Education
* M. C. Prottengeier, Director of Vocational Education and director of the project, 1963-64
* Mrs. Ruth Robbins, Head, Home Economics Education
* L. J. Teufner, Coordinator of Cooperative Industrial Education and Director of Placement, 1963-64, Director of Vocational Education, 1964-65
Eldrich Afdahl, Teacher of Industrial Education
Dennis Brooks, Teacher of Industrial Education
John Bryant, Teacher of Industrial Education
Mr. Fasciszewski, Teacher of Art
Mrs. Joan Fragner, Teacher of Home Economics
I. Galia, Counselor
Wayne Gilbert, Teacher of Industrial Education
Robert Massell, Teacher of Industrial Education
Ray Matheson, Teacher of Industrial Education
Dale Wideman, Teacher of Industrial Education

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*Members of Staff Committee on Evaluation

APPENDIX B

List of Instruments Developed and/or Used in the Study*

- High School Entry Job Descriptions
- Questionnaire--check-list, Follow-up Study of Graduates of Marshall High School
- Placement Office Application
- Placement Office Employer Record
- Placement Office (Referral Card)
- Employment Record
- A Suggested Form for Keeping Individual Placement Records
- Parents' Evaluation of Homemaking Program
- Interview Form--Occupations and Employment in Business, Industry, Farming, Government, Services, and Professions.
- Interview Form--Evaluation of the Vocational Agriculture Program

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*Copies of these instruments are included in the Appendix of the Manual, Evaluation of Vocational Education Programs, Bureau of Educational Research, College of Education, Michigan State University, 1965.

APPENDIX C

Examples of Statements of Objectives*

1. Objectives of Education for the Public Schools

   - Develop individuals who will be able to see and solve successfully the problems of life and desire to take the steps necessary to do so.

   - Be most concerned with the major problems of living which are: health, ethical character, citizenship, vocational activity, home membership and recreation.

   - Develop in the child ideals of worthy individual and social purposes.

   - Develop powers of self-direction, self-appraisal and self-control.

   - Develop the desire and ability to work cooperatively with others in the solution of social problems.

2. Objectives of Vocational Education for the High School

   - Provide opportunity for students to explore vocational education programs to determine interests and abilities.

   - Provide vocational guidance to aid students in their choice of vocational education programs.

   - Provide opportunity for students to specialize in one or more vocational education programs.

   - Provide opportunity for students to gain basic skills and knowledge needed to qualify for an entry job in a skilled occupational field or to acquire avocational skills.

   - Provide background for students to continue studies in post-high school vocational and technical education programs

   - Provide background for students to progress in their chosen occupational fields and gain economic and job security.

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*Prepared by the Staff Committee on Evaluation of the Fitzgerald School

APPENDIX C (Continued)

3. Objectives of Industrial Education for the High School

- To provide practical experience which will help to develop an interest and an understanding of the place industry, its materials, and processes have in social and economic life.

- To develop a degree of consumers' knowledge which involves the ability to select wisely, care for, and use properly the products of industry.

- To develop an appreciation for functional design, color harmony, organic structure, and good craftsmanship in creative and commercial products.

- To develop wholesome work habits and a feeling of responsibility so that work may progress in a safe, orderly manner with an emphasis on the conservation of time and materials.

- To provide for individual differences in abilities of students and to provide extra experiences for the exceptional child.

- To provide occupational guidance.

- To provide an opportunity for investigation and experimentation through many media.

- To provide an interest in, and foster, wholesome leisure time activities.

- To provide an effective correlation between industrial education and general education subjects.

- To provide an opportunity for students to specialize in an occupational area.

- To provide background for students to continue in post-high school vocational and technical education programs.